

ISSN 0253-4916

Vol. 11 No. 3

July—Sept. 1989

# FOOD PATENTS



Central Food Technological  
Research Institute, Mysore,  
CSIR, India.



National Information System  
for Science and Technology  
Department of Scientific and  
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# **FOOD PATENTS**

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National Information Centre for Food Science and Technology  
Central Food Technological Research Institute,  
Mysore — 570 013, India

Annual Subscription: Rs.100.00, US \$ 50.00, Single copy: Rs.25.00

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## ENGINEERING AND EQUIPMENT

A wet grinder

ANPUMONY BAYLIS

India 163348 (September 1988)

The patent relates to a wet grinder in which the grinding action between the grinding stone and the basestone has enhanced efficiency. Here the grinding stone and the scraper blade can be readily disassembled for cleaning and readily assembled in place for operation. It comprises a rotatably mounted base stone housed within a casing, the basestone being driven by a prime mover and having a cavity for receiving the material to be ground. There is one arched member surmounting the casing and a spring-loaded socket movably located in a slot in the arched member; the socket receiving the shaft of the grinding stone to exert a resilient lateral pull on the grinding stone.

Improvements in or relating to wet grinders

SENGALIPALAYAM DASA NAIDU RANGASWAMY

India 162284 (April 1988)

The patent describes an invention relating to wet grinders for grinding food substances. These grinders are easier to wash; capable of grinding a smaller quantity of substances; is more free from noise during operation; and is subject to less wear and tear. The bearings provided for the shaft on which the grinding stone is rotatably mounted and pivotably supported on a shaft provided with a bearing. The shaft is enclosed in a housing pivoted to a support, whereby the grinding stone rotates in contact with the base stone and is also manually liftable above the base stone.

Improvements in/or relating to CTC machines in the processing of tea leaves

STEELSWORTH PVT LTD.

India 162302 (April 1988)

The patent describes a CTC machine with improved rollers having improved roller mounting system comprising CTC rollers having axial bores from either end to accommodate suitable roller mountings. The roller has not conventional integrally formed shafts. The axial bores on either side of the roller are formed identical to each other. The drive mechanism provided at the free end of the sleeve member is of conventional type. A tea leaves spreader of conventional arrangement is provided at the feed end of the belt conveyor. The shaft is of steel and is hard chromium plated. These improvements are made to overcome the drawbacks of the conventional CTC machines.

4 An apparatus for extrusion of dough and a process therefor

NABISCO BRANDS INC.

India 162308 (April 1988)

The patent relates to a process and apparatus for extruding dough, particularly for yeast dough, crisp breads and puffed breakfast cereals. The process comprises passing the dough through a die slot having its long edges arranged vertically, thereby causing vaporization of water and expansion of steam in the dough. As the dough leaves the die slot, the degree of expansion of the dough is controlled by passing the dough between two guide surfaces disposed on either side of the die slot. This process and apparatus enables one to produce crisp breads having a substantially uniform colour and appearance on their major horizontal surfaces. In order to reduce the possibility of dough forming at the die slot and having the dough become overcooked, the guide surfaces, are used in the process. This increases the thermodynamic characteristics of the die, allowing it to operate at cooler temperature.

5 A stacking grate

PALANISWAMY GOVINDASWAMY

India 163208 (August 1988)

The patent refers to a stacking grate intended for stacking thereon various materials and goods such as bags of fertilizer and food grain among various other articles. Many of the components are made out of plastic. Hence the grate is a light weight construction and highly portable. It is, simpler and of greater combined flexibility and strength than other grates. It is not susceptible to rust or corrosion, damp, attack termites and insects. There is better air circulation and the material stacked will be maintained in better condition.

6 Stackable crate

PANICK (HD)

Germany 8804850 (1988)

A water cooler with refrigerated compartment

VOLTAS LTD.

India 163249 (August 1988)

The patent refers to a water cooler which provides continuous supply of filtered and cooled water and which also has built-in refrigerated compartment for storing food and other perishable items. It does not require elaborate plumbing arrangement. Neither it is required to be connected to continuous source of water supply. It can therefore be conveniently kept anywhere in the office or other commercial establishments. The system uses a two restrictor (capillary) series system for feeding the two evaporators at different pressures and the optimum design of the heat exchange in the two evaporators for obtaining adequate cooling of both the water as well as the refrigerated compartments.

A tea fermenting drum

CHIRANJILAL HARI PRASAD

India 162431 (May 1988)

The patent describes a tea fermenting drum which comprises one conveying spiral vane provided on the internal periphery from its inlet end to its outlet end, the drum being rotatably supported and driven by a prime mover to convey tea leaves fed in at the inlet to its outlet under exposure to air. The drum progressively diminishes in perimeter from its inlet to enhance oxygen retention at the outlet. The drum is slightly inclined upwardly with respect to the horizontal from its inlet to its outlet. The already fermented dhoobs are not overtaken by the unfermented dhoobs inside the drum.

Process for manufacture of moulded food items and equipment and spraying drum for use in this process

GEBRUDER BUHLER AG.

Switzerland 666 386 (1988)

PRESERVATION AND PACKAGING

A device for enhancing the preservation period of substances kept in refrigerators and for preventing the spread of odours therein

NATES A THIYAGARAJAN BHARADWAJ

India 162285 (April 1988)

The patent refers to a device which comprises a perforated capsule the wall of which is atleast partly coated with a paste made of water and lime treated with sodium vapour, the interior of the capsule housing a pouch containing a mixture of activated carbon and activated silicon gel. The capsule is provided with an opening for introduction and withdrawal of the pouch and also with a lid for closing the opening. This device minimises bacterial growth in the refrigerator, which is usually indicated by a foul or musty smell. Due to the capsule articles with strong perfume can be stored along with other articles, without any of them losing its own distinctive odour or acquiring the odour of another stored substance.

11 Microwave heating

MARDON SON & HALL LTD.

PCT International 88/05249 (1988)

12 Method of thermally processing foodstuffs

AMERICAN NATIONAL CAN CO.

PCT International 8800799 (1988)

13 Process and device for sterilizing the contents of containers made of dielectric material

GRANGER (G)

PCT International 88/07958 (1988)

14 Pasteurization and sterilization of foods in the form of powders or pieces, spices and pharmaceutical products etc. by high frequency or ultra high frequency treatment

ARO LABORATORIUM

Germany 3639412 (1988)

15 Process for heat sterilization of foods

SCHULZE WITTEBORG (W)

Germany 3643262 (1988)

Fluid sterilizing process and device

ULTRAVIOLET TECHNOLOGY ITALIA

Europe 0268968 (1988)

Process for dehydrating and puffing food particles

WEBB (WA)

United States 4769249 (1988)

Installation and process for drying or ripening foodstuffs (with unsaturated air)

HANDL (K)

PCT International 88/05632 (1988)

Process and device for extrusion of a food product

WERNER & PFLEIDERER GMBH

Germany 3636867 (1988)

Process and device for smoke treatment of foods

ERICH SCHROTER GMBH

Germany 3642175 (1988)

Apparatus and method for fumigation and detoxification of plant seed

TOLTEC CORPORATION

United States 4780279 (1988)

Process for agglomeration of foods

SOCIETE DES PRODUITS NESTLE SA

Switzerland 665755 (1988)

Foldable plastics film

HOECHST (AG)

Germany 3078354 (1988)

- 24 Improved process for manufacturing multi-ply tissue paper and the like  
and a device for manufacturing said tissue paper by said process

PAREKH (JC)

India 162204 (April 1988)

The patent describes an improved process for manufacturing tissue paper including toilet paper rolls, paper napkins, facial tissues, table mats and tea mats, decorative tissue paper ribbons for making decorative paper bunting, paper flowers etc., different varieties of tissue paper for different cleaning, polishing and other domestic/industrial/hospital/personal hygiene applications. This process enables increase productivity and profitability for the tissue paper manufacturing industry without increasing the capital investment and retail price of the paper rolls. The cost-effective steps for producing multi-ply tissue paper include reduced wastages of tissue paper during its various manufacturing stages to absolute minimum and reducing energy and/or chemical costs per tonne of tissue paper.

- 25 Smokable synthetic food-packaging film

KUREHA KAGAKU KOGYO

United States 4764406 (1988)

- 26 Polymeric (Polypropylene, styrene) multilayer sheet suitable for the manufacture of microwavable containers for foods

CONTINENTAL CAN CO. INC.

Europe 0275102 (1988)

- 27 Containers and methods for packaging perishable foodstuffs for enhanced shelf-life

TEEPAK INC.

Europe 0275350 (1988)

- 28 Frozen confection container and method

PILLSBURY CO.

United States 4762232 (1988)

- 29 Frozen food package and cover lid  
STOUFFER CORP  
United States 32739 (1988)
- 30 Preparation of foods capable of being adjusted to individual tastes and container for storage of these foods  
MENGE (R)  
Germany 3704212 (1988)
- 31 Plastics package for the controlled ripening of produce and fruits  
GREENGRASS (M)  
Europe 0282180 (1988)
- 32 Process and device for sterile packaging of products in containers  
FINNAH GMBH  
Germany 3701915 (1988)
- 33 Packaging container with sealing membrane  
ROBERT BOSCH GMBH  
Germany 3641385 (1988)
- 34 Beverage packages  
GENERAL FOODS LTD.  
Europe 0272922 (1988)
- 34 Container providing controlled atmospheric storage  
HERCULES INC.  
Europe 0270764 (1988)
- 36 Process and device for automatic packaging of breakable produce in folded cartons.

62

FISCHER (W)

Germany 3637112 (1988)

37 An improved pilfer-proof closure for sealing a container such as bottle and a container such as bottle having the same.

LARSEN &amp; TOUBRO LTD.

India 162466 (May 1988)

The patent describes a typical pilfer-proof closure used for sealing a container such as bottle having a neck with a single thread. It comprises a cup-shaped member having a base portion and a skirt portion depending on the base portion. The skirt portion is partitioned into an upper portion and a lower portion by a circumferentially weakened line. The lower portion of the skirt is provided with a vertically weakened line which is straight, inclined or curved, originating from the edge.

38 Tubular bag type pack for block or bar type products, e.g. chocolate products.

RAPP (HP)

Germany 3618765 (1987)

39 Closing bags

BOWTHORPE - HELLERMANN LTD.

Great Britain 2201651 (1988)

40 Tamper evident releasable cap or closure for closing, opening and reclosing a package

TRI-TECH SYSTEMS INTERNATIONAL INC.

India 163531 (October 1988)

The patent refers to a new and unique tamper evident closure and package which provides clear and unequivocal evidence of the condition of the package. The package includes a resealable substantially rigid closure for closing, opening and reclosing a container, colour changing means which changes colour upon stretching and coacting mechanical means on the closure and container for uncapping and recapping the closure and for stretching the colour changing means to produce a change in colour which indicates the condition of the package upon movement of the closure.

41 An improved pouch

UNISYSTEMS PRIVATE LTD.

India 163177 (August 1988)

The patent relates to a pouch for packaging and dispensing of a liquidous material and is an improvement in or a modification of the pouch invented earlier to prevent the spillage of the liquid, when the pouch is resting in a horizontal position. The pouch comprises a front and back sheet sealed to each other along the longitudinal edges, base and the top side when the liquid is contained within the pouch. Further a tear zone extends from the topside and a longitudinal side. The longitudinal side has an additional heat seal disposed below the top side, to define a discharge passage and a flow passage. In operation, when the tearzone is sheared apart, pressure is applied to the sides of the pouch and the liquid flows through the flow passage into the discharge passage and finally through the opening defined by the shearing apart of the tear zone.

42 Method and apparatus for pre-forming spout in seal flexible pouch (for foods, e.g. mustard, ketchup, syrup).

AMPAC CORPORATION

PCT International 88/05013 (1988)

43 Closure for rectangular container for storing of liquid

WILHEIM KULLBERG

India 162393 (September 1988)

The patent describes a closure which enables stacking of several containers above each other; economical transportation and storage; very simple opening of the container closure; a guided pouring of the content which avoids a mess of the liquid and which makes possible a locking of the closure for later use.

44 Liquid containers

SPLICERITE LTD.

Great Britain 2200954 (1988)

45 Method and apparatus for filling bags with individual packs (e.g. of vegetables)

64

W. J. MORRAYENGINEERING LTD.

Great Britain 2197290 (1988)

46

Container for perishable goods

DOLPHIN PACKAGING MATERIALS LTD.

Great Britain 2200340 (1988)

47

A stackable container for fruits, vegetables, fish etc and set of parts for making the same

CAIRWAY LTD.

Great Britain 2199017 (1988)

48

A plastics bottle type dispensing container for salted sources, sweetened sauces and the like

SAN CARLO GRUPPO ALIMENTARE SPA

Europe 0276198 (1988)

49

Carton blank and carton pack for liquids

ELOPAK (AG)

Switzerland 664939 (1988)

50

Container with resealable tear-open lid

ZUMSTEG (H)

Switzerland 665401 (1988)

51

Process for preparation of a food pack made from organic material

KORNER (M)

Germany 3639185 (1988)

52

Food tray with lid and method of production thereof

DU PONT CANADA INC.

Europe 0282277 (1988)

53      Plastics thermoformed food tray with lid locking mechanism  
          INLINE PLASTICS CORP  
          United States 4771934 (1988)

54      Aluminium can  
          TUBEX GMBH  
          Germany 8715676 (1988)

55      Lid for beverage cans  
          HELPENSTELLER (W)  
          Germany 8716838 (1988)

56      Easy-open metal lid for cans.  
          SCHMALBACH-LUBECA AG.  
          Europe 0236736 (1988)

57      A method of obtaining a canned food product and a plant for carrying out the process  
          MICHEL HENRI ROLAND LARROCHE  
          India 162448 (May 1988)

The patent describes a method of obtaining a canned food product, packed under high vacuum in a hermetically closed rigid container, the product being capable of being added with water without impairing or damaging the organoleptic qualities. The process comprises of filling food products into a rigid container; adding to fulness a covering liquid into the container; placing the whole unit thus provided within a substantially airless steam atmosphere, removing from the container atleast a part of the covering liquid, so as to substitute steam; hermetically closing the container, before or after having subjected the whole unit to a heat treatment. Air or uncondensable gas is fully removed and replaced by a liquid.

#### CHEMISTRY AND ANALYSIS

58      Removal of radioactive metals from liquids, foods and feeds  
          Removal of radioactive metals from liquids, foods and feeds

ALLGAUER ALPENMILCH AG.

Germany 3704046 (1988)

- 59 A process for preparing a protein hydrolysate having a desired viscosity

SOCIETE DE PRODUITS NESTLE

India 162438 (May 1988)

The patent describes a method for treating protein hydrolysates so as to control their viscosity and thereby avoid storage problems. The cause of the viscosity increase with time is the presence of magnesium ions and calcium ions which are contained in the protein hydrolysate. A reduction of these ions renders the hydrolysate resistant to viscosity increase upon storage. It is also found that the addition of a pyrophosphate to a protein hydrolysate would result in the reduction of viscosity with time.

- 60 Method for fractionation of vegetable proteins by reduction

FUJI OIL CO. LTD.

United States 4771126 (1988)

- 61 Manufacture of coated preparations of metallic trace elements in the ionized form

MILCHWERKE WESTFALEN EG

Germany 3800183 (1988)

- 62 Liquid enzyme formulations

CHRISTNER (J)

Germany 3704465 (1988)

- 63 Enzymatic treatment of solutions of polysaccharide biopolymers

RHONE-POULENC SPECIALITES CHIMIQUES

United States 4775632 (1988)

## FOOD ADDITIVES

Colouring compositions

DEL MONTE CORPORATION

United States 47 81 936 (1988)

Process for preparation of a flavour preparation with a chicken-like flavour

LEISKE (B)

Germany 260648 (1988)

Powdered, water dispersible carotenoid preparations and their manufacture

HORN (D)

Germany 37 02 030 (1988)

Preparation of foods from or modification of the flavour of materials of plant origin

HEWZ SCHAAF NAHRUNGSMITTEL EXTRUSION TECHNIK

Germany 36 35 980 (1988)

Process for recovery of flavour substances or flavour concentrates

ROTHE (M)

Germany 2 58 174 (1988)

A process for preparing a flavorant

SOCIETE DES PRODUITS NESTLE

India 162 318 (April 1988)

The patent pertains to the preparation of flavorants which impart cooked meat flavour to foodstuffs. The process economically and desirably utilizes an oxidized lipid material, to provide a wide range of chemical precursors which facilitate the preparation of flavorants having the characteristic species which more closely resemble that of natural cooked meat. The flavorants produced by this process are

enhanced and intensified so that a relatively small amount of these flavourants is needed to obtain a desired flavouring effect upon a foodstuffs. Essentially all the oxidation products are utilized in the process to produce a flavorant of exceptional intensity and character.

70 Edible glaze, process for covering foods and its use for preserving foods

MERO ROUSSELOT SATIA

France 26 08 901 (1988)

71 Process for preparation of salt

KOHLER (B)

Germany 36 42 145 (1988)

72 Salt taste enhancer

DESIMORE (JA)

PCT International 88/06850 (1988)

REGISTERED

73 Heat stabilized dipeptide sweetening composition and method

FINNISH SUGAR CO. LTD.

United States 47 72 482 (1988)

74 Aqueous gel comprising carrageenan

UNILEVER NV.

Europe 0 27 113 (1988)

75 Caramel-containing cellulosic article

VISKASE CORP

United States 47 81 931 (1988)

76 Plant gum material and use thereof in food products

BIOPOLYMERS PTY LTD.

PCT International 88/06627 (1988)

77 Non-heated gellan gumgels

MERCK & CO. INC.

Europe 01 30 689 (1988)

78 Modified plant fibre additive for food formulations

GOULD (JM)

United States 47 74 098 (1988)

79 Composition of oats and nettle extracts to be used as a food additive or pharmaceutical preparation in human health care

KOVACS (J)

Europe 02 82 002 (1988)

#### CEREALS AND MILLETS

80 Method for making vitamin enriched cereal

NABISCO BRANDS INC.

United States 47 64 388 (1988)

81 Non-aqueous processing of rice

UNCLE BEN'S INC.

PCT International 88 01 137 (1988)

82 Low shear extrusion process for manufacture of quick cooking rice

WNGER MANUFACTURING INC.

Europe 02 77 498 (1988)

83 Low shear extrusion process for manufacture of quick cooking rice

WNGER MANUFACTURING INC.

United States 47 69 251 (1988)

84 Process for making microwavable shaped rice products

ZUKERMAN (HW)

United States 47 64 390 (1988)

85 Process for simultaneous recovery of wheat starch and gluten

SCHIRNER (R)

Germany 2 58 718 (1988)

86 Enriched rye and barley and its production

TAKEDA CHEMICAL INDUSTRIES LTD.

United States 47 65 996 (1988)

87 Method for the preparation of flavoured popping corn

BORDEN INC.

United States 47 67 635 (1988)

88 Prepared dish based on maize and wheat flours

ROBERT (CJG)

France 26 06 974 (1988)

89 Process for separation of polysaccharide-containing flours into high and low protein fractions

MEYHALL CHEMICAL AG.

Switzerland 666 790 (1988)

#### PULSES, OILSEEDS AND NUTS

90 Process for recovery of protein products from oilseeds and legume seeds

SCHWENKE (KD)

Germany 260 219 (1988)

1      Process for preparing products from legumes using centrifugation  
WOODSTONE FOODS LTD.

United States 47 66 204 (1988)

2      A process for preservation of sprouted food grains including pulses of all kinds without loss of any vitamins and without using any harmful preservatives

LATA VASANT PARADKAR

India 162 207 (April 1988)

The patent describes a process for the preservation of sprouted food grains by cleaning the food grains to remove dust/foreign particles; soaking the cleaned foodgrains in water for 24 hours, allowing the soaked food grains to get sprouted for another 24 hours; applying admixture of edible oil and haldi powder by hand or mechanically to the sprouted foodgrains; steaming the foodgrains for 10-15 minutes; drying the steamed sprouted food grains in shade for 2 days and packing and sealing the food grains in polyethylene bags. The dried/dehydrated sprouted food grains are soaked in water for one hour prior to cooking.

93      Coagulating box for use in making bean curd from soy milk

SANYO SHOKUHIN KK

United States 47 70 319 (1988)

94      Process for preparation of a product from soybeans

GEBRUDER BUHLER AG.

Switzerland 665 090 (1988)

95      Process and device for elimination of bacteria from nuts and similar products

GEBRUDER BUHLER AG.

Switzerland 666 791 (1988)

96      Coated, dry-roasted nuts and process

NABISCO BRANDS INC.

United States 47 69 248 (1988)

97 Industrial preparation of coconut flour and new food product prepared from this flour

AUBOURG (R)

France 26 03 776 (1988)

TUBERS, VEGETABLES AND FRUITS

98 Method for covering fruit and vegetable products in general with protective substances

DOTT BONAPACE & CO. SPA

Europe 02 74 163 (1988)

99 Manufacture of crystalline free-flowing storage stable fruit/or vegetable powders

ADRAU (AG)

Switzerland 665 092 (1988)

100 Process for preserving fresh fruit and vegetables

BUTLAND (P)

United States 47 64 385 (1988)

101 Packaging of fresh fruit and vegetables

BUNZL FLEXPACK LTD.

United States 47 69 262 (1988)

102 Process for preparation of a fresh product from vegetables, fruit etc. and container for implementation of the process.

PHILIP(T)

Europe 02 74 553 (1988)

- 103 Process for peeling of onions  
SCHWARZEL (H)  
Germany 260 649 (1988)
- 104 Extraction and purification of pigments from red beets  
DONGOWSKI (G)  
Germany 259 202 (1988)
- 105 Segmenting and dehydration process for sugar beets  
LACKMANN (RK)  
United States 4 770 883 (1988)
- 106 Process for preparation of a preserve of radish  
AXLE PLAN CORP  
United States 4 777 055 (1988)
- 107 Method for making a hash brown potato fatty  
QUAKER OATS CO  
United States 4 772 478 (1988)
- 108 Pack and process for preservation of fresh peeled potatoes  
OTT (R)  
Germany 3 7065 317 (1988)
- 109 Cassava couscous  
CHAKER (E)  
France 2 601 233 (1988)
- 110 Dried tomatoes  
IEPA (M)

France 2 605 501 (1988)

111 Process and device for manufacture of reconstituted fruit  
for use in foods

GARNIER (P)

France 2 609 237 (1988)

112 Fruit tray with grips

CARTONNERIES d' AUVERGNE SA

France 2 611 652 (1988)

113 Fruit refrigerating device

RUBIO (JG)

United States 4 768 351 (1988)

114 Fruit chip product and process for making the same

FRITO-LAY INC.

United States 4 767 630 (1988)

115 Process for destoning of stone fruit

VE FORSCHUNGS INSTITUT FUR OBST UND GEMUSEVERARBEITUNG

Germany 257 193 (1988)

#### SUGAR, STARCH AND CONFECTIONERY

116 Process and apparatus for the production of sugar thick juice  
for the manufacture of sugar

DE DANSKE SUKKER FABRIKKER

Europe 0 110 315 (1988)

117 Process for producing fructose

FAN (LT)

United States 4 774 183 (1988)

118 Soft, sugarless aerated confectionery composition

WARNER-LAMBERT CO

Europe 0273001 (1988)

119 Chewing gum with long lasting softness

WARNER-LAMBERT CO

United States 4 780 324 (1988)

120 Reduced calorie chewing gums and method

WARNER-LAMBERT CO

United States 4 765 991 (1988)

121 Stable cinnamon-flavoured chewing gum composition

WARNER-LAMBERT CO

Europe 0 273 857 (1988)

122 Method of making and applying beta-limit dextrin containing starch hydrolysates

KAPER (FS)

United States 4 780 149 (1988)

123 Improved method and apparatus for recovering chocolate

PREMIER BRANDS UK LTD.

Great Britain 2 199 725 (1988)

124 Process and device for automatic placing of items, especially chocolates, in a pack

LESCH (HB)

Germany 3 704 423 (1988)

125 Box for packaging pieces of confectionery specially chocolates  
CADBURY LTD.

Great Britain 2 199 015 (1989)

126 Improved chocolate product and method of producing the same  
GREEN (G)

Europe 272 768 (1988)

127 Chocolate product  
OVERBECK (E)

Germany 3 635 858 (1988)

128 Process for treatment of cocoa butter  
SOCIETE DES PRODUITS NESTLE SA  
Switzerland 666 160 (1988)

#### BAKERY PRODUCTS

129 Packaging process for baked goods  
CAMPBELL TAGGART INC.  
United States 4 769 245 (1988)

130 Moulding rectangular bakery products  
MASTER BAKER HOT PLATE CO.  
Great Britain 2 197 173 (1988)

131 Filled bakery product pockets  
NOCKEMANN (O)  
Germany 3 704 192 (1988)

132 Process and device for freezing of bakery products

- KIRCHHOFF (B)  
Germany 3 636 713 (1988)
- 33 Microwave cookable batter  
CIBUS SA  
PCT International 88/06007 (1988)
- 34 Low temperature extrusion process for quick cooking pasta products  
WENGER MANUFACTURING INC  
United States 4 763 569 (1988)
- 35 Process for making a packaged dough for a baked confectionery  
HOUSE FOOD INDUSTRIAL CO. LTD.  
United States 4 777 057 (1988)
- 36 Method of making pocket bread having pressure relief hole  
MANI (D)  
United States 4 775 543 (1988)
- 37 Bread-acidifying composition, its manufacture by extrusion and  
bread manufacture  
NEXUS APS  
Europe 0 271 735 (1988)
- 38 New modified gluten product and bread improver composition  
NISSHIN FLOUR MILLING CO. LTD.  
Europe 0 282 038 (1988)
- 39 Biscuit snacks  
UNITED BISCUITS (UK) LTD.  
Great Britain 2 201 573 (1988)

140 Method of manufacturing biscuit-type articles

BATTELLE MEMORIAL INSTITUTE

United States 4 770 890 (1988)

141 A process for preparing a cookie dough for producing reduced calorie cookies

India 163 334 (September 1988)

The patent relates to cookie doughs and methods for producing reduced calorie cookies which possess the desirable texture, mouthfeel and appearance of conventional cookies. Reductions in the sugar, flour and shortening contents of the baked goods are compensated with lower calorie ingredients including a water-soluble polydextrose, an emulsifier and a cellulosic bulking agent. A multi-component leavening system and an edible alkaline agent are used to provide a pleasing open-celled texture in the final baked products.

142 Pastry pies

HOLT (T)

Great Britain 2 202 725 (1988)

143 High stability, high flavour, breakfast pastry

PILLSBURY CO.

Europe 0 088 361 (1988)

#### MILK AND DAIRY PRODUCTS

144 Milk-shake product

THOMAS J Lipton INC.

United States 4 737 372 (1988)

145 Aerated food product based on fresh milk and process for its manufacture

JACOBS SUCHARD AG

Switzerland 666 991 (1988)

- 146 Fermented milk product and process for producing the same  
EISAI CO. LTD.  
  
Europe 0 059 942 (1988)
- 147 Soft-serve frozen yoghurt mixes  
HUBER (CS)  
  
United States 4 737 374 (1988)
- 148 Portion pack, specially for butter  
HELLER (E)  
  
Switzerland 665 405 (1988)
- 149 Process and device for manufacture of butter  
WESTFALIA SEPARATOR AG.  
  
Germany 3 705 643 (1988)
- 150 Hot-pack, all-dairybutter substitute and process for producing the same  
BLANKEBAER/BOWEYKRIMKO CORP  
  
United States 4 772 483 (1988)
- 151 Method for producing a highly flavoured cheese ingredient  
CAMPBELL SOUP CO  
  
United States 4 752 483 (1988)
- 152 A process for the manufacture of cheese curd  
KRAFT, INCORPORATED  
  
India 162 279 (April 1988)

The patent describes a process for the manufacture of cheese curd from milk retentates by means of evaporation techniques. The process involves the adding of known cheese-making cultures to the retentate and fermenting the retentate to a pH of between 5.6 and 4.8 without coagulation; adding a known milk clotting enzyme in a non-coagulating

amount but in an amount sufficient to convert at least 65% of the Kappa casein to para kappa casein after evaporation and curing; evaporating moisture to a total solid content of more than 55% and holding the pre-cheese under curing conditions until parakappa casein has been formed, with this process, the curd has knitting characteristics and the cheese has a typical cheese body and texture.

- 153 Tofu cheese product and process of preparation

PIRELLO (RJ)

United States 4 765 995 (1988)

- 154 A process for preparing improve food stuffs such as polysaccharides and ice creams

HINDUSTAN LEVER LTD.

India 162 205 (April 1988)

The patent describes a process of preparing polysaccharides and ice creams having improved properties such that the prepared ice cream has low drip rate and retains shape well for longer duration and the polysaccharide prepared has good gel forming properties. The rheological properties of the modified galactomannan obtained according to the invention, are such that they are valuable ingredients for food stuffs (human and animal), and also for cosmetic, pharmaceutical and industrial applications. For convenient processing homogeneous mixtures of atleast one emulsifier and/or other polysacchride with enzymatic modified galactomannan are prepared. These mixtures may contain an amount of emulsifier at least equal to the weight of modified guar and other gums. The combinations are conveniently prepared from solutions or melts using techniques such as spray drying, spray cooling or drum drying.

#### MEAT, FISH AND POULTRY

- 155 No salt, low fat diet meat product

SCHNELL (K)

Europe 0 279 883 (1988)

- 156 Process for treatment of meat

DREANO (C)

Europe 0 274 334 (1988)

157 Packaging of meat roasts

MERCIER (R)

France 2 605 974 (1988)

158 Food composition for use in preparation or decoration of meats and similar products

VITROCULTURE SA

Europe 0 166 748 (1988)

159 Preparation of cooked and meat products especially boiled ham

IYIMEN (S)

Germany 3 638 672 (1988)

160 Package for sliced bacon adapted for microwave cooking

CONAGRA INC.

Europe 0 271 268 (1988)

161 Process for preparing a trichinæ-free pork product

SWIFT-ECKRICH INC

United States 4 780 323 (1988)

162 Method for the treatment of fish and meat

KICHLU (K)

Europe 0 278 592 (1988)

163 Improvements in or relating to fish-shack food stuffs

BRAINSTORM INVESTMENTS LTD

Great Britain 2 197 174 (1988)

164 Infrared dehydrater unit for minced fish

FRAIOLI (J)

United States 4 781 933 (1988)

165 Method of continuously processing fish

NIPPON SUISAN KAISHA LTD.

United States 4 769 256 (1988)

166 Process for manufacture of smoked fish fillets

HAAS (D)

Germany 3 635 911 (1988)

167 Method and apparatus for producing shrimp-shaped food products

KK IKEUCHI TEKKOSHO

Europe 0 277 410 (1988)

168 Egg product and process

NABISCOBRANDS INC.

Europe 0 103 427 S( 1988)

169 Pack and preservation method for freshly boiled and shelled eggs

OTT (R)

Germany 3 639 302 (1988)

170 Pack for eggs

USKY (M)

Germany 3 734 567 (1988)

171 Poultry processing

BP CHEMICALS LTD.

United States 4 766 646 (1988)

72 Process for keeping cooked poultry skin unwrinkled during low temperature storage

GENERAL FOODS CORP.

United States 4 781 935 (1988)

FRUIT JUICES AND SOFT BEVERAGES

173 Process for dispensing fruit juice beverages

KIRIN BEER KK

United States 4 759 471 (1988)

174 Beverage containing pasteurized red or white grape juice

BLAETTLER (I)

Switzerland 665 091 (1988)

175 Closure-fitting unit for beverage containers

GRUNDY (TEDDINGTON) LTD.

Europe 0 102 701 (1988)

176 Cocoa-containing preparation

LUDWIG SCHOKOLADE GMBH

Germany 3 738 042 (1988)

177 Process and device for preparation of cocoa and coffee beans

DREVICI-KUX (U)

Switzerland 665 753 (1988)

178 Packaging receptacle with gas outlet vent (to enable the escape of gas generated by packaged goods e.g. coffee)

ROBERT BOSCH GMBH

PCT International 88/07479 (1988)

- 179 Process for improving the flavour of Robusta coffee sorts  
COMPACK KERESKEDELCI CSOMAGOLÓ VALIALAT  
Europe 0 282 345 (1988)
- 180 Process for treating coffee beans to make a better-tasting coffee  
PROCTER & GAMBLE CO.  
Europe 0 271 957 (1988)
- 181 Process and device for manufacture of decaffienasted tea  
BARTH RAISER & CO  
Germany 3 640 333 (1988)
- 182 Process for aroma recogvery from and re-addition to tea  
SKW TROSTBERG  
Germany 3640967 (1988)

## SPICES AND CONDIMENTS

- 183 Method of controlling the odour of liquid condiments  
LIVE INTERNATIONAL CO. LTD.  
United States 4 765 997 (1988)
- 184 Process for producing vinegar  
KUBOTA (T)  
United States 4 770 881 (1988)
- 185 Garlic prepasration with reduced odour effect  
MATTHESS (K)  
Germany 3 743 264 (1988)

FATS AND OILS

86 Packaging for food fats, cheese and the like  
UNILEVER (NV)

Europe O 264 768 (1988)

87 Method of filtering spent cooking oil  
GYCOR INTERNATIONAL LTD.

United States 4 764 384 (1988)

88 A process for preparing a reduced - menthofuran content peppermint oil  
WARNER-LAMBERT CO.

Europe O 113 988 (1988)

89 Continuous hydrogenation of unsaturated (edible) oils  
RIVERS (JB)  
PCT International 88/00855 (1988)

PROCESSED FOODS

90 Food composition with superior blood cholesterol lowering properties.  
PROCTER & GAMBLE CO.

Europe O 271 963 (1988)

91 Energy-rich food for sportsmen  
WAGER (HH)

Germany 3 639 741 (1988)

92 Prepared mixed salad  
STEPHAN (J)

Germany 3 631 518 (1988)

193 Dietetic food

ABERHAM (R)

Germany 3 731 304 (1988)

194 Reconstituted food and process and mixer for its preparation

ETUDE RECHERCHE ET DEVELOPMENT ERD SOL

Europe 0 274 301 (1988)

195 Method for preparing extruded fried snack products

WILLARD (MJ)

United States 4 769 253 (1988)

196 Process for producing vegetable protein foods

NISSHIN OILS MILLS LTD.

United States 4 777 059 (1988)

197 Production of rehydratable food products

KNOWLES (WR)

United States 4 781 937 (1988)

198 Process and device for screening of jam

STOLCH (J)

Germany 3 706 352 (1988)

199 Non dairy product

IMPERIAL CHEMICAL INDUSTRIES LTD.

Europe 0 270 281 (1988)

200 Sweet dietetic-therapeutic infant and baby foods: method of manufacture

DEDICOVA (L)

Czechoslovakia 255 213 (1988)

1 Method for preparing sheeted fried snack products

WILLARD (MJ)

United States 4 770 891 (1988)

2 Baby feeding packs

METAL BOX P/C

Great Britain 2 200 049 (1988)

3 Puffed food products and methods of making such products

DEUEL (CL)

Europe 0 280 402 (1988)

4 Method and apparatus for the formation of a shaped food product

KOBAYASHI (M)

Europe 0 280 484 (1988)

5 Fibre rich diets of some therapeutic advantage from Psyllium ispaghula husk and guar gum

LAIVANI (KS)

Great Briatain 2 201 875 (1988)

6 Protein extracts

KIRK (WM)

PCT International 88/05633 (1988)

MICROBIOLOGY AND FERMANTATION  
(including alcoholic beverages)

7 Process for preparation of a fibre-rich low lipid fraction from brewer's spent grains

WICKULER-KOPPER-BRURFI GMBH & CO

Germany 3 704 651 (1988)

208 Process for purification of fruit brandies or spirits

CHRISTOPH (NW)

Germany 3 705 954 (1988)

209 Method for freezing sake

OZEKI SAKE BREWING CO. LTD.

United States 4 765 147 (1988)

210 Preparation of alcohol-free barley malt-based beverage

OWADES (JL)

United States 4 765 993 (1988)

211 Method for preparing alcoholc drinks from vegetable juice

COLIN (G)

PCT International 88/05084 (1988)

212 Process and device for the preservation of wine

STROHMEIER (W)

Switzerland 664 766 (1988)

213 Preparation of alcohol free wine

JOSEPH SEAGRAM (E) & SONS INC.

United States 4 775 538 (1988)

214 Method of preserving wine in a bottle and a wine preserving container

KAWAGUCHI (T)

Europe 0 272 404 (1988)

215 Calcined silicas and their use in beer clarification

UNILEVER NV

Europe 0 105 633 (1988)

Non-returnable container, especially for beer

GEBRUDER THIELMANN

Germany 8 801 899 (1988)

Processs and device for recovery of residual beer from yeast and recycling of the residual beer without further processing

SCHONDUBE (HJ)

Germany 260 836 (1988)

Microbial production of polyfructose

IGENE BIOTECHNOLOGY INC.

United States 4 769 254 (1988)

Rehydratable instant active dried yeast

NABISCO BRANDS INC.

United States 4 764 472 (1988)

Manufacture of yeast autolysate

ADAMEK (L)

Czechoslovakia 256 863 (1988)

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#### WASTE UTILIZATION



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**Regd. No. 36730/84**

**Printed and published by Dr.B.L.Amla, Director, Central Food Technological Research Institute, Mysore 570 013, at CFTRI Printing Press.  
Editor: Shri K.A.Ranganath, CFTRI, Mysore.**